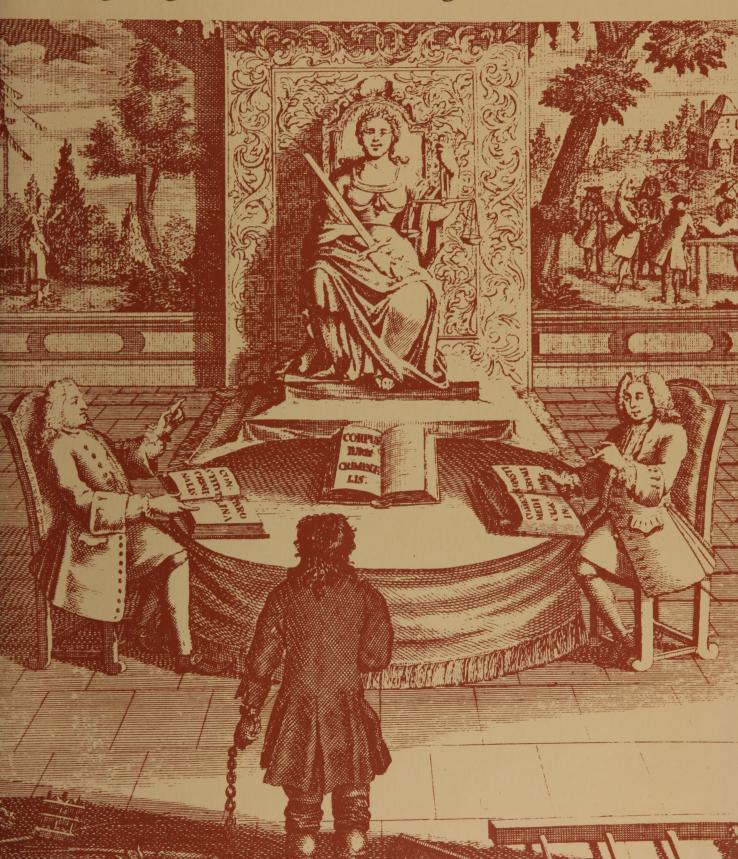


## Highlights in Medicolegal Relations



Cover

Illustration from Michael Alberti's book <u>Commentatio in Constitutionem</u> Criminalem <u>Carolinam Medica</u> (1739)

The figure of Justice, with scales and sword, is seated in the center; depicted, upper right, is the obduction of a cadaver. The scene at upper left shows a woman apparently contemplating the drowning of a child. A lawyer sits before Justice at the left, and a physician at the right. As they debate the case, using the criminal code to buttress their arguments, the manacled defendant faces Justice.

## HIGHLIGHTS IN MEDICOLEGAL RELATIONS

Compiled by Dr. Jaroslav Nemec

These "Highlights" are a selection, arranged chronologically, from among the major events in the field of medicological relations. The compiler chose them in the course of his work on the World List of Medicologal Serials, 1736-1967 (in press) and while assembling material for this exhibit.

It is hoped that the list of memorable events and figures in the interaction of law and medicine will serve not only those who visit the current exhibit at the National Library of Medicine, but students and scholars everywhere.

NATIONAL LIBRARY OF MEDICINE 8600 Rockville Pike Bethesda, Md. 20014 Jaroslav Nemec was born in 1910 in Orechov, Czechoslovakia, where he was a student at the school of which his father was principal. In 1937, he earned the degree of Doctor of Juridical and Political Sciences (corresponding to the Doctor of Laws in the U.S.) at Masaryk University in Brno (Brünn), Czechoslovakia.

Following the required military service, Dr. Nemec practiced law in his District Court. In November 1939, he left German-occupied Czechoslovakia to join the Czechoslovak Army Abroad, serving successively as Military Justice in France and England, and Military Field Prosecutor in England. In 1944, he became General Field Prosecutor of the Czechoslovak Army (an office similar to the U. S. Army's Judge Advocate General), first in Russia and then in Czechoslovakia.

After coming to the United States in March 1952, Dr. Nemec held various posts. In 1956, he earned a Master of Science degree in Library Science at the Catholic University of America. He served as research librarian in the Washington office of the American Medical Association until August 1959, when he joined the NLM staff as Reference Librarian specializing in medical jurisprudence.

Dr. Nemec's publications are many and varied: their subjects include history and the history of law, physicians in the U. S. Congress, forensic medicine, etc. Now in press is his comprehensively annotated World List of Medicolegal Serials, 1736-1967, to be published by the National Library of Medicine.

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## HIGHLIGHTS IN MEDICOLEGAL RELATIONS

30th cent. B. C. Imhotep (ca 2980-2900 B. C.) personifies medicolegal relations in ancient Egypt. He was personal physician to Pharaoh Zoser, as well as his chief justice. His medical fame was so great that he was later worshipped as a god.

ca 2050 B.C. The Ur-Nammu Code, promulgated by the Sumerian king, Ur-Nammu, is the oldest known code of laws. It stipulates monetary compensation for bodily injury and is therefore more progressive than many later codes, which still permitted talio (an eye for an eye, a tooth for a tooth).

ca 1700 B.C. The Hammurabi Code of Laws, the first known Semitic code, was patterned after similar collections of Sumerian laws. Intended to regulate all economic relations in Babylonia, it includes tables of fees for medical services, as well as cruel penalties to be inflicted on the physician whose treatment is unsuccessful.

14th or 13th Cent. B.C. The Hittite Code sets financial compensation (in silver) for murder, and sets fees for most bodily injuries.

900-600 B.C. The Dahrma-shastra, the science of law or the Code of Manu, India, forbade the corporal punishment of pregnant women.

- 715-673 B.C. The Lex regia of Numa Pompilius ordered Caesarean section after the death of a pregnant woman [Negat lex regia, mulierem quae praegnans mortua sit humari antequam partus excidatur]
- ca 450 B.C. Deuteronomy contains some indications that physicians participated as expert witnesses in the execution of Mosaic law.
- The Leges duodecim tabularum in Rome contained the following provisions of medicolegal importance:

  a/The time of gestation can not exceed
  300 days.

  b/The foetus in utero has the same rights to the estate of its father as the child already born.

  c/Insane persons and their estates are the responsibility of their clansmen.

  d/For personal injuries, either talio or fixed monetary compensation is permitted.

  e/Pater familias (the chief of a clan) has ius vitae necisque, i.e., he may decide
- ca 415 B.C. The aphorism, De vulneribus lethalibus, ascribed to Hippocrates (460-ca 377 B.C.), is one of the earliest writings of medicolegal importance. Hippocrates is also credited with the first known description of epilepsy (De sacro morbo).

child.

about the need to kill a severely deformed

- ca 350 B.C. Diocles taught that a child born in the seventh month of pregnancy may be able to survive, an opinion that was later accepted.
- 81 B.C. The Lex Cornelia de siccariis et veneficiis ordered punishment for malpractice and for poisoning.

44 B.C.

The dead body of Gaius Iulius Caesar was examined by the physician Antistius. He found and described 23 wounds, the second of which was fatal.

1st cent. A. D.

Students of the Rabbi Ishmael boiled the body of an executed prostitute and counted the bones, finding a total of 252.

14-37

Celsus completed his <u>De re medicina libriocto</u>. Only a brief treatise on the lethality of wounds is of medicolegal importance. The chapter on melancholy and mania is also quite interesting.

2nd cent.

Galen (130-201) wrote Quomodo morbum simulantes sint deprehensi - the first known treatise to be entirely concerned with a medicolegal topic.

3rd cent.

In China, a physician named Wu P'u was able to settle legal cases by means of his knowledge of medicine. This is the first known mention of any relation between the law and medicine in China.

5th cent.

Formula comitis archiatrorum - the earliest code of medical ethics.

466-485

The Lex Visigothorum, also called Codex Euricianus, was promulgated during the reign of King Euric over the Western Goths in Spain. A considerable part of the code is devoted to physicians and the practice of medicine. Physicians were not favored; on the contrary, they were restricted in their practice by rules similar to Babylonian or early Roman provisions.

486-511

The Lex Salica, one of the oldest of the Leges barbarorum, admits physicians as witnesses to the courts and sets monetary compensation (Wergeld) for injuries.

5th or 6th cent.

The manuscript, De adventu medici ad aegrotum, is one of the earliest deontological texts.

6th cent.

Gregory of Tours (538-593) mentions that physicians in France were sometimes summoned as expert witnesses by the courts.

6th cent.

Chinese tradition holds that, in this century, a famous doctor, Hsu Chich-Ts'si, wrote the Ming Yuan Shih Lu, the world's first treatise on forensic medicine. Unfortunately, it is lost.

533

Justinian's <u>Digests</u> (XXV tit. 4), De inspiciendo ventre et custodiendo partu, order the examination of women by a midwife in cases concerning pregnancy.

9th cent.

At the start of the century, Charlemagne issued his <u>Capitularia</u>, which ordered judges to use medical expertise in cases of injury, murder, infanticide, suicide, rape, impotence, and bestiality. All judicial cases had to be decided on the basis of reliable evidence; ordeals were not permitted.

10th cent.

Of many works by the first Moslem physician of distinction, Ali Razi, or Rhazes (860 - 932 A.D.), two concern us: his Essay on medical accidents, which is a defense of trained physicians against quacks, and The book of antidotes.

ca 900-950

Celtic law in Wales was codified by King Hywel Dda. The Code placed a fixed monetary value on everything that could be the subject of a law suit. There was a fixed price for every part of the body (galanas). Most valuable was the tongue, because "it defends the rest." Physicians were called by the courts as expert witnesses.

1100

The Assizes et bon usages du royaume de Jérusalem, a code of ethics for the European crusaders in Palestine, was proclaimed; it stipulates that physicians and surgeons may testify concerning the inability of a knight to perform his duties. The first reference to the use of this code in Europe was in 1250. [Some authors give 1073 as the date of promulgation of the Assizes]

1131

The Council of Rheims forbade clerics to practice medicine. The same stricture was imposed on the clerics of Byzantium in 1157.

1140

Roger II, King of Apulia and Sicily, proclaimed the law which, in its art. 36, De probabili experientia medicorum, orders that anyone wishing to practice medicine must submit to examination of his medical knowledge.

1163

The Council of Tours decided that, 'the Church detests blood' (Ecclesia abhorret a sanguine), which especially delayed the development of surgery. On the other hand, however, it did free medicine from ecclesiastical influence.

1207

Norman law mentions the use of surgeons' expertise in court.

Pope Innocent III accepted the expert testimony of physicians in an ecclesiastical court for a case concerning the lethality of a wound. [... peritorum iudicio medicorum talis percussio asseretur non fuisse letalis ...] This decision established a precedent which was often cited and followed in all European legal orders.

ca 1210

The College de Saint Côme was organized in Paris. It consisted of surgeons of "long robes" and "short robes" (barbersurgeons and barbers).

1213

Trial by ordeal was abolished in England.

1231

Emperor Frederick II, in the Constitutiones regni Siciliae, extended the provisions of Roger II (1140) concerning medical practice. He ordered eight years of study, then practice, and, finally, an examination in Salerno. If he passed successfully the student received his doctoral degree and a written document from the Emperor.

1234

The Decretales Gregorii IX (5 books) were promulgated by the Pope. They contain the provision that impotentia coeundi, the occasion for ecclesiastical divorce, be ascertained by an attempt of intercourse in the presence of witnesses (e.g. cum septima manu). This was the so-called "proof of congress."

1238

Emperor Frederick II ordered that a corpse be dissected every five years to provide material for study at the medical school. This is the first known authorization of dissection.

1249

Hugo de Lucca, of Bologna (ca 1160-1257), issued medical certificates required by the court of justice.

1260	Coutume de Paris, a book of French common law, mentions the use of surgeons' expertise.
1276	The statute, De officio coronatoris, regulated the duties of the coroner in England.
1286	The first record of a postmortem examination by an anonymous physician in Cremona.
1295	The Jus vetus Uplandicum of Sweden required that, in a case of bodily injury, the defendant had to provide the injured person with the necessary medical care and, to this end, offer him three experienced surgeons from whom he could select one. Only then was the defendant absolved from paying Wergeld (blood money).
1300	In the bull, De sepulturis, Pope Boniface VIII forbade the practice of boiling dead bodies (evisceratio cadaverum eorumque in aqua decoctio). This practice became widespread during the time of the crusades.
1302	Bartolomeo de Varignana was ordered by the Bologna court to perform an autopsy (suspicion of poisoning).
1311	Philip the Fair, King of France, ordered the examination of surgeons, government control of the surgical profession, and reporting of deaths and injuries by sworn physicians, surgeons, and midwives.

1316	Mondino de Luzzi finished his Anatomia, the most popular textbook before Vesalius. It was first printed in Padua (1487) and went through 39 editions and translations. In it, he describes the postmortem examination of two female cadavers.
1319	The first known criminal prosecution for "body snatching" was initiated in Bologna. Those involved were local students and their master, one Albert.
1326	Pope John XXII issued the bull, Super illius specula, against the practice of magic.
1337	John of Luxemburg, King of Bohemia, hired a French physician in Breslau to treat his eye. When the physician's treatment failed, the king ordered that he be drowned in the River Oder.
1341	A public dissection was performed in Padua by Gentile de Foligno.
1363	The first book of Guy de Chauliac's Chirurgia magna was devoted to anatomy.
1374	Venice imposed on travelers what was probably the earliest quarantine, banning travelers from countries with bubonic plague. In 1403, it was ordered that travelers from the Levant be isolated in a hospital for 40 days.
1374	The Medical Faculty at Montpellier obtained permission to open human cadavers.
1391	University of Lerida (Spain) permitted the dissection of one human body every three years.

1394	Medicolegal autopsies were first authorized in Pavia.
1406	The practice of surgery in Germany was regulated by the Emperor Wenceslas.
1409	The first insane asylum was established in Seville (Spain).
1471	The postmortem examination of the body of George of Podebrady, King of Bohemia, revealed the liver half-destroyed, and a stone the size of a pigeon egg in the gall-bladder.
1484	Pope Innocent VIII issued a bull, Summis desiderantes, which authorized the hunting and burning of witches.
1486	A private autopsy was performed on the body of King Stephan Batory of Poland.
1497	Hieronymus Brunschwig (1450-1533) of Strassburg, a surgeon, published the first known detailed description of gunshot wounds.
1500	Jacob Nufer, a pig-gelder in Switzerland, performed the first known Caesarean section performed on a living woman. His own wife, was the patient, the operation successful.
1507	Johann (Stark) von Schwarzenberg (1463-1528) drafted the Bambergische Halsgerichtsordnung (Constitutio Bambergensis, also called Mater Carolinae), which was promulgated by George, Bishop of Bamberg. It ordered judges to summon physicians in certain criminal cases.

Antonio Benivieni's (1440-1502) work, De abditis nonullis ac mirandis morborum et sanationum causis, containing pathological findings from twenty autopsies, was posthumously printed.

ca 1519

Juan de Morales, surgeon on the flagship of Magellan, performed an autopsy.

1525

The Great Court of Naples ordered the determination of materia before courts of justice by means of scientific expertise.

1528

Albrecht Dürer (1471-1528), German painter and engraver, published Vier Bücher von menschlicher Proportion, the first example of anthropometry in art.

1532

Emperor Charles V promulgated the Constitutio criminalis Carolina (Peinliche Halsgerichtsordnung) for all German states. It orders the courts to summon physicians, surgeons, or midwives in cases of abortion, murder, manslaughter, poisoning, suicide, bodily injury, or accountability, and for the application of torture. Moreover, physicians had to testify in cases of malpractice and to record in writing their autopsy findings.

1533

Local authorities on the island of Hispaniola ordered an autopsy of Siamese twins to determine whether they were one or two individuals and whether they possessed one or two souls.

1537

The first recorded medicolegal examination in Russia of a person's physical status was performed by a physician named Maghel.

1541	Jean Milles de Sovigny (Joannes Millaeus), "subprefectus" of the Paris Court of Laws, published his Praxis criminis persequendi, which describes the expertise of surgeons.
1542	The Witchcraft Act was promulgated in England (but repealed in 1547). Another law against witchcraft was enacted in 1563.
1543	Vesalius laid the foundation of modern anatomy with his De fabrica humani corporis.
1545	Ambroise Paré (1510-1590), adviser and first surgeon to the King of France, published La manière de traicter les playes faictes par hacquebutes et autres bastons à feu - the most successful treatise on the treatment of gunshot wounds up to that time.
1547	Antonius Blancus, in his Tractatus de indiciis homicidii, was probably the first to raise the question of the reliability of ius cruentationis. This was originally a custom of Germanic tribes, often invoked by the German courts. It was based on the firm belief that a cadaver would start to bleed when touched by the murderer. Ius cruentationis was applied in the courts of Germany until about 1750.
1549	The first known anatomical theater was opened in Padua.
1554	Joost de Damhouder (1507-1581), lawyer of Bruggs, published Enchiridion rerum criminalium, a textbook of criminal procedure. Chapter 77 (De invasione) describes the form of medical and surgical reporting in cases of murder and injury.

1556	Henry II, King of France, promulgated the law that any woman who had concealed her pregnancy and destroyed the child, would be condemned to death. She could escape this penalty only if a surgeon testified that the child was not at term or stillborn.
1556	Emperor Charles V was advised by the University of Salamanca that the dissection of human cadavers serves a useful purpose and is therefore permissible to Christians.
1556	The first known exhumation in Bohemia was conducted in Melnik on a dead body buried for about one week.
ca 1560	Jakub Kamenický, a physician of Prague, conducted the first pathologo-anatomical dissection in Bohemia, and found gall-bladder calculi in the dead body.
1561	Gabriele Fallopio (1523-1562) published his famous Observationes anatomicae.
1562	The first judicial postmortem in France was conducted by Ambroise Paré (1510-1590).
1562	Witchcraft became a capital crime in England.
1563	Johann Weyer (ca 1516-1588), a physician of Duke William of Clèves, published De prestigiis daemonum et incantationibus ac veneficiis libri quinque in Basel. He tried to prove in it that magicians and demoniacs are actually subjects of hysteria and hypochondriasis. He however, believed in the existence of witches and of sorcery, but considered them rare. The reaction of the public was violent. The book was listed in the Index librorum prohibitorum, his disciple was strangled and burned, and Weyer himself was lucky to escape the same fate.

1564 Giovanni Filippo Ingrassia (1510-80), Italian clinician and epidemiologist and professor in Naples and Palermo, published the Constitutiones et capitula necnon iurisdictiones regii protomedicatus officii cum pandectis eiusdem reformatis. This was among the first medicolegal publications. 1564 Julio Cesare Aranzio (1530-89), of Bologna, published De humano foetu, an important contribution to the advancement of embryology. 1565 An experiment with a poison and its antidote was conducted, in Prague, on a murderer sentenced to death. He survived and received amnesty, as promised. At about the same time, a similar experiment was performed in Clermont, France, by order of King Henry II. A condemned cook took the poison and the antidote, but died in the presence of Ambroise Paré, who performed the autopsy. The dissection of executed criminals was 1565 permitted in England by Queen Elizabeth. Felix Plater (1536-1614) of Basel urged 1570 the psychiatric treatment of the insane. Ambroise Paré (1510-1590), the first 1575 surgeon to the King of France, published a treatise on medical reports, as well as a description of monoxide poisoning.

Giovanni Filippo Ingrassia (1510-1580)

published Methodus dandi relationes pro
mutilatis torquendis. No copy has survived,
but the manuscript itself is preserved in
Palermo.

1578

1580	German law forbade shepherds and herdsmen to practice obstetrics on human subjects.
1594	Hieronymus Fabricius ab Aquapendente (ca 1533-1619) built a new anatomical amphitheater in Padua.
1594	Andreas Libavius (1546-1616) of Halle published De cruentatione cadaverum et de unguento armario, which greatly strengthened the position of the Ius cruentationis.
1595	Andreas Libavius (1546-1616) published his Alchymia, the first treatise on chemistry.
1597	Giovanni Battista Codronchi (1547-1628) published his Methodus testificandi, a guide to physicians on the preparation and presentation of medical expertise. Two years before, his De morbis veneficis ac veneficiis libri quatuor was printed in Venice; it described illnesses caused by witchcraft and sorcery.
1597	A text of this date contains the first indication that ius cruentationis was in force in Scotland.
1598	Severin Pineau (? -1619) published <u>De</u> notis integritatis et corruptionis virginum, which became the textbook on virginity, still cited as an authoritative source in the 19th century.
1600	Joannes Jessenius de Magna Jessen (1566-1621) conducted the public dissection of the body of an executed criminal in Prague. The dissection, with about 1000 spectators, lasted five days.

The Court of the City of Mělník, Bohemia, dismissed the charges against a pregnant woman for stealing. The reason: "Pregnant women do many strange things."

1602

Fortunato Fedele (1550-1630), a physician from Sicily, published De relationibus medicorum libri quatuor. It is the first relatively comprehensive and well-organized treatment of forensic medicine and physicians' activities in the field of public hygiene.

1603

Jean de la Rivière, first physician to Henry IV, King of France, was ordered to appoint in every city, under royal jurisdiction, two persons "de l'art de médecine et de chirurgie," to examine and report on cases of sudden death and injuries. This arrangement lasted to 1692, when the right of appointment was transferred to the municipal authorities.

1614

Rodericus à Castro (1541-1627), a Hamburg physician, published Medicus politicus: sive De officiis medico-politicis tractatus. While devoted to medical ethics and problems concerning the medical profession, it also contains many chapters on forensic medicine.

1615

Andreas Libavius (1546-1616) published Chirurgia transfusoria, a treatise on blood transfusion.

1616

Fortunio Liceti (1577-1657), professor in Pisa, Padua, and Bologna, published his famous book, De monstrorum causis, natura et differentiis. It was reissued several times and even translated into French. It served, however, only to compound the medieval confusion of both forensic medicine and obstetrics.

1621	Paolo Zacchia (1584-1659), personal physician to the Pope, Protomedicus to the Church State, and adviser to the Sacra Rota Romana, published the first of his Quaestiones medicolegales. In eleven books, he assembled problems concerned with the application of medicine to canon, civil, and criminal law and to public hygiene. In the last two books, he included decisions of the Sacra Rota Romana. His work is the first systematic compilation of medical expert opinions and forms the cornerstone of forensic medicine.
1628	William Harvey (1578-1657) published De motu cordis.
1629	Bernhard Suevus (fl. 1617-1629) published his Tractatus de inspectione vulnerum lethalium one of the earliest German treatises of medicolegal importance on lethal wounds.
1629	One of the earliest examples of psychiatric expertise in Europe concerned a case in Poland, where physicians examined a woman-prophet, Poniatowska, to determine her sanity. Her prophetic powers were credited for some time by such celebrities as Comenius.
1639	The Assembly of Virginia passed a law regulating medical practice.
1642	Daniel de Luna, a Polish military surgeon, published his Quaestiones legales in Prague.
1647	Massachusetts Bay Colony imposed quarantine restrictions against ships from Barbados. This is probably the first record of quarantine in the USA.
1649	America's Old Colony Laws regulated the practice of medicine.

1650	Johann Michaelis (1607-1667), professor of pathology and therapy at the University of Leipzig, lectured on forensic medicine.
1658	Jan Swammerdam (1637-1680) of Amsterdam was the first to recognize and describe red blood-corpuscles.
1662	René Descartes (1596-1650) published the first treatise on physiology, <u>De homine</u> .
1666	Coroners were appointed for each county in Maryland.
1670	The Faculty of Medicine of the University of Prague decreed that the expert opinion of the Faculty concerning any injury could be pronounced only after a session of the Dean, a Professor, three barber-surgeons, and two barbers.
1670	Paul Ammann (1634-1691) published Medicina critica, sive decisoria - a collection of expert opinions issued by the Faculty of Medicine of the University of Leipzig.
1670-1672	In the first recorded medicolegal cases in North America, Governor Lovelace of New York granted four divorces on grounds of impotence.

Karel Rayger (1641-1707), anatomist of Bratislava, was the first to suggest that the so-called hydrostatic test of the lungs of the newborn be used in the courts as proof of infanticide. He reported on his dissection of a child in Miscellanea curiosa medicophysica Academiae naturae curiosorum 1675/6, concluding: "Argumentum credo indubitatum ad convincendas infanticidas ... an infans in utero mortuus, vel demum post partum quocunque modo strangulatus vel occisus."

The first record of the application of this test in criminal law is dated 1682. It was brought to the attention of the court by a Bavarian physician, Johann Schreyer. The hydrostatic test of the lungs was a very fashionable topic until the mid-19th century. One of its last defenders was a professor at the University of Vienna, Joseph Bernt (1770-1842).

1677

The so-called "proof of congress," established in 1234 under the Decretales Gregorii IX to determine impotence, was abolished in France. The chief reason was the scandal concerning the Count of Langey who, a divorcé generally known to be impotent, produced seven children in a second marriage.

1679

Théophil Bonet (1620-1689) published Sepulchretum sive anatomia practica, with about 3,000 anatomical findings. He is considered to be the forerunner of G.B. Morgagni.

1680

The death penalty for witchcraft was abolished in France.

1681

Gerard Blaes (1625-1692), Dutch anatomist, published the first comprehensive treatise on comparative anatomy.

1684	Nicolas de Blegny (1652-1722) published La doctrine des rapports de chirurgie, on the obligation of surgeons to report any suspicion of crime, and how to prepare expert opinion for presentation before the court.
1689	Johannes Bohn (1640-1718) published  De renunciatione vulnerum, seu vulnerum  letalium examen - the best work on fatal injuries of that period.
1691	An autopsy was performed on New York Governor Henry Sloughter because of suspected poisoning. It was ordered by the Provincial Council and conducted by six surgeons. The verdict: natural death.
1692	During the Salem witchcraft trials, twenty persons were accused and executed. The accusations were afterwards found false, and the Governor halted the trials in 1693.
1697	An anatomical theater was opened in Edinburgh.
1700	The Province of Pennsylvania proclaimed "An act to prevent sickly vessels coming into the government."
1706	Johann Friedrich Zittmann (1671-1758) published Medicina forensis, based on a collection of expert opinions by the Leipzig Medical Faculty from 1650 to 1700.
1710	The Quarantine Act was passed in England.
1712	Jane Wenham was the last person convicted (though later pardoned) of witchcraft in England.

1714	Russia's Military Instructions and Articles ordered the postmortem examination of dead soldiers to find the cause of death. Written reports then had to be submitted to the courts of justice.
1714	The <u>Tabulae anatomicae</u> , which had been completed by <u>Bartolommeo Eustachi</u> (1524-1574) in 1552, were the first anatomic plates to be printed on copper.
1715	Physicians of Prague participated as medical experts in the inquiries preceding the canonization of John of Nepomuk (drowned at the end of the 14th century). On opening his grave, they found his tongue still well preserved. John of Nepomuk was finally canonized in 1729. [For historians, however, the identity of the canonized person as well as the reasons for canonization are more than questionable]
1723	Hermann Friedrich Teichmeyer (1685-1746), a professor of Jena, published the Institutiones medicinae legalis vel forensis. It was used as a standard textbook for many years and republished several times.
1725	The practice of medicine was regulated in Prussia.
1725	Johann Franz Löw von Erlsfeld (1648-1725), professor of anatomy and surgery at the University of Prague, published his Theatrum medico-juridicum.
1730	Thomas Cadwalader (1708-1779) started the teaching of anatomy by dissection, in Philadelphia.
1735	English laws against witchcraft were repealed.

1736	Michael Alberti (1682-1757), professor of medicine and natural sciences at Berlin, published his Systema jurisprudentiae medicae, a mixture of backwardness and progress. Alberti was still in favor of torture and cruentation, and he believed in magic and demons. On the other hand, he considered sorcery a mental disease and had a critical attitude toward other medical problems.
1737	Physicians in all Russian cities were ordered to participate in medicolegal investigations.
1740	The first lecture on forensic medicine was delivered at Copenhagen University by George Detharding.
1746	Christian Ehrenfried Eschenbach (1712-88) of Rostock wrote Medicina legalis, brevissimis comprehensa thesibus in usum auditorii conscripta, in which he treated forensic medicine quite apart from public hygiene.
1751	A Royal Ordinance issued in Denmark provides that the bodies of all murder victims be autopsied.
1755	The earliest serial devoted wholly to forensic medicine, Der medicinische Richter oder Acta physico-medico-forensia Collegii Onoldini, was started by Johann Georg Hasenest (1688-1771) in Onolzbach [Ansbach] Germany.
1759	The first public dissection was conducted in the American colonies by John Bard and Peter Middleton.
1760	Regulation of the practice of medicine in New York City.

1761 Giovanni Battista Morgagni (1682-1771) published De sedibus morborum, the basis of pathological anatomy. 1763 Carl von Linné (1707-1778), Swedish physician and naturalist, published Genera morborum in auditorum usum - the first scientifically valuable classification of diseases. 1768 William Heberden (1710-1801) of England introduced the term "angina pectoris" and gave its first thorough description; his report was published in 1802. 1779 Johann Peter Frank (1745-1821) began publishing his System einer vollständigen medicinischen Polizey, the first wellorganized and comprehensive work on public health. The last (6th) volume appeared in 1816. 1781 Joseph Jacob Plenck (1739-1807) stated, in his famous Elementa medicinae et chirurgiae forensis, that the only proof of poisoning is the chemical identification of the poison in the organs of the body. This opinion was not generally accepted until Orfila's work on poisons had appeared. 1782 The first medicolegal journal, the Magazin für die gerichtliche Arzeneikunde und medicinische Polizei, was started in Stendal, Germany, by Konrad Friedrich Uden (ca 1750-1830?). 1784 At Ingolstadt, Prof. Franz Anton Ferdinand Stebler (1705-1789) began lecturing on forensic medicine in the German language (instead of Latin).

1785 E. V. Guldener von Lobes (1763-1827) was appointed to the chair of forensic medicine and "medical police" at the Medical School of the University of Prague. His lectures were to be collegium privatum (paid for directly by the students). 1786 Antoine François Fourcroy (1755-1809) and Michel Augustin Thouret (1748-1810) first described adipocere. 1788 Samuel Farr (1741-1795) published Elements of Medical Jurisprudence, the first book on forensic medicine in the English language. It is actually an abridged translation of J.F. Faselius' Elementa medicinae forensis (1767), to which a chapter "Upon Madness" was added by Farr. 1789 The French physician, Joseph Ignace Guillotin (1738-?), as a member of the Constituent Assembly, was instrumental in introducing the law requiring all death sentences to be carried out by "means of a machine. " From 1792 on the machine designed (but not invented) by him was referred to as the guillotine. John Hunter (1728-1793), English surgeon, 1790 recommended a method of artificial insemination to a patient. In France, the Law of "14 frimaire an III" 1792 (Dec. 14, 1792) created chairs of forensic medicine at all French medical schools. Philip Syng Physick (1768-1837) and Isaac

in Philadelphia.

Cathrall (1763-1819) made a number of autopsies during the yellow fever epidemic

1793

1794	Johann Daniel Metzger (1739-1805), professor at the medical school in Königsberg, where he lectured mainly on forensic medicine, published Systema medicinae forensis.
1794	Thomas Percival (1740-1804) published privately his Code of medical ethics. It was first printed for general distribution in 1803.
1797	Instructions issued concerning the rights and duties of the Boards of Physicians in Russia, also contain some rules of medical expertise.
1798	Philippe Pinel (1745-1826), with the consent of the National Assembly, released 49 insane patients of a Paris hospital (Bicêtre) from chains.
1799	Francois-Emmanuel Foderé (1764-1835), physician in Marseille, wrote Les lois éclairées par les sciences physiques: ou Traité de médecine-légale et d'hygiène publique. This book marked a new era of legal medicine in France and the advancement of the whole field.
1801	Andrew Duncan, Sr. (1744-1828) offered lectures on medical jurisprudence at Edinburgh.
1801	Philippe Pinel (1745-1826) published his famous Traité médico-philosophique sur l'aliénation mentale, ou La manie, which subsequently appeared in many editions.

1801	Prof. Giuseppe Tortosa (1743-1811) published <u>Istituzioni di medicina forense</u> , one of the first Italian publications with progressive and critical views but still not completely free of old superstitions.
1802	A Chair of Forensic Medicine was established at the University of Berlin.
1803	A Chair of Legal Medicine was established at the University of Edinburgh.
1804	A Chair for Staatsarzneikunde was established at the University of Vienna on the basis of a new plan of medical studies prepared by Johann Peter Frank.
1804	A Chair of Anatomy, Physiology and of Forensic Medicine was established at the University of Moscow.
1805	A Chair of Forensic Medicine was created at the Jagellon University in Cracow.
1807	A Chair of Forensic Medicine was established as a salaried position at the Medical School of the University of Prague.
1809	Adolph Christian Heinrich Henke (1775-1843), professor at the University of Erlangen, started lectures on forensic medicine for both physicians and lawyers.

Benjamin Rush (1745-1813), American 1810 physician, introduced medical jurisprudence into his lectures on institutes of medicine at the University of Pennsylvania. The contents of his course, published in 1811, chiefly concerned forensic psychiatry. Franz Joseph Gall (1758-1828) and 1810 Johann Caspar Spurzheim (1776-1832) started the publication of Anatomie et physiologie du système nerveux, a four-volume work on cerebral functions which stimulated further research into the brain, but also led to the creation of a pseudo-science, phrenology. James S. Stringham (1775-1817) was 1811 appointed Professor of Medical Jurisprudence at the College of Physicians and Surgeons in New York. Mathieu Joseph Bonaventure Orfila 1813-5 (1787-1853) published two volumes of his Traité de poisons. It marked the beginning of modern experimental and forensic toxicology. James S. Stringham (1775-1817) 1814 published the syllabus of his lectures on medical jurisprudence in the American Medical and Philosophical Register. Starting in about 1798, John Haslam 1817 (1764-1844) published a number of

(1817).

works in England on insanity. The best known was his Medical Juris-prudence as it Relates to Insanity

In Pisa, Giacomo Barzelotti (1758-1839) published Medicina legale secondo lo spirito degle leggi civili e penali veglianti nei governi d'Italia, which describes the application of medicine in Italian law, both criminal and civil.

1818

Pieter de Riemer (1760-1831), Dutch anatomist, was probably the first to use a frozen body for anatomical dissection.

1818

Joseph Bernt (1770-1842), professor of forensic medicine at the University of Vienna, started the first Austrian medicolegal serial, the Beyträge zur gerichtlichen Arzneykunde.

1821

Adolph Christian Heinrich Henke (1775-1843), professor at the University of Erlangen, started the Zeitschrift für die Staatsarzneikunde, a leading periodical in Germany on public health and forensic medicine.

1821

John Gordon Smith (1792-1833), professor at the University of London, published The Principles of Forensic Medicine - the earliest English work on medicolegal problems of bodily injuries.

1823

Mathieu Joseph Bonaventure Orfila (1787-1853), professor of forensic medicine at the University of Paris, published the Leçons de médecine légale - a modern textbook with new chapters on putrefaction and postmortal wounds.

1823 Theodoric Romeyn Beck (1791-1855), American physician, medical writer, and educator, published the Elements of Medical Jurisprudence - the first authoritative book on the subject in the United States and one of the best in the English language. It was republished several times in England and translated into German and Swedish. Jan Evangelista Purkyne (1787-1869), 1823 a Czech pioneer in experimental physiology, histology, and embryology, and one of the greatest microscopists, investigated finger-prints, and devised their first classification. A Chair of Forensic Medicine was 1826 established at Josefinum, the military medical academy in Vienna. Forensic medicine had been taught at this institution from the start (1785), but not as an independent subject in its curriculum. Thomas Addison (1793-1860), English 1829 physician, wrote, with John Morgan (1797-1847), the first book in English on the action of poisons in the living body. The first French medicolegal journal, 1829 Annales d'hygiène publique et de médecine légale, began publication in Paris.

unclaimed bodies.

1830

Massachusetts passed an anatomical

law concerning the disposition of

1832	An institute entitled Praktische Unterrichts-Anstalt für die Staatsarzneikunde was established at the Friedrich-Wilhelms Universität in Berlin. The lectures covered the examination of living persons, dead bodies, and food and drugs, and instructions on public health legislation.
1832	The Anatomy Act was passed in England.
1832	Sergei Alekseevich Gromov (1774-1856), professor of forensic medicine at the Military Medical Academy in St. Petersburg, published Kratkoe izlozhenie sudebnoi meditsiny, the first book on forensic medicine in the Russian language. In 1837, it was translated into Polish and in 1838, appeared in its second Russian edition.
1833	Robert Carswell (1793-1857), professor of pathology at the University College of London, published his Atlas of Pathological Anatomy.
1836	Marie Guillaume Alphonse Devergie (1798-1879), second only to Orfila in French legal medicine, published his two-volume work, Médecine légale, théoretique et pratique, which reached several editions.
1838	Isaac Ray (1807-1881), American psychiatrist, published his Treatise on Medical Jurisprudence of Insanity, the best work of that time in English and still a recognized authority in courts of law today.

1838	Jean Étienne Dominique Esquirol (1772-1840), French psychiatrist, published his work, Des maladies mentales considerées sous les rapports médicale, hygiénique et médicolégal - one of the first modern text-books of psychiatry.
1838	August Timoleon Wistrand (1807 - 1866), published Handbok i forensiska medicinen, the first textbook of forensic medicine in Sweden.
1840	Trial of Marie Lafarge (France), who poisoned her husband. M.J.B. Orfila's expert testimony about the presence of arsenic in the dead body was the decisive factor in the verdict of life imprisonment for Lafarge. This trial is often cited as the first occasion on which scientific toxicology was introduced to the courts of justice.
1843	A Chair of Forensic Medicine was founded in Madrid.
1845	A Chair of Forensic Medicine was founded at McGill University in Montreal.
1847	The first Code of Ethics of the American Medical Association was adopted in Philadelphia.
1849	The House of Delegates of the American Medical Association, at its session in May, approved the appointment of a Committee on Forensic Medicine.

Jean Servais Stass (1813-1891), a chemist of Brussels, developed a method of extracting alkaloids from cadavers. His success encouraged similar studies by others.

1850

Horace Nelson (1821-?) and F.J. d'Avignon started in Plattsburgh, N.Y., the first medicolegal journal in the United States, The Northern Lancet and Gazette of Legal Medicine.

1851

Magnus Huss (1807-1890), Swedish physician, published Alcoholismus chronicus. It is a profound study and definition of alcoholism.

1855

Frank H. Hamilton (1813-1886), professor of surgery in New York, published Deformities After Fractures, which greatly influenced the outcome of malpractice suits. It appeared in several editions.

ca 1855

Ambroise August Tardieu (1818-1879), pupil of Orfila, started publishing his "Études" - monographs on various problems in forensic medicine. Tardieu was a casuist, an outstanding medical expert, and, therefore, a "star" in many civil and criminal proceedings.

1856

Johann Ludwig Casper (1796-1864), professor in Berlin, medical writer and editor, published his Praktisches Handbuch der gerichtlichen Medicin, which contained a great wealth of facts and was unsurpassed for a long time. Reprinted several times, it was also translated into English. Casper reformed German forensic medicine, and freed it from previous judicial formalism and dependence on other sciences.

1860	John Johnson Elwell (1820-1900), physician and lawyer, professor of medical jurisprudence in Ohio, published A Medico-Legal Treatise on Malpractice and Medical Evidence, Comprising the Elements of Medical Jurisprudence. It went through four editions.
1862	Samuel Wilks (1824-1911), described dissecting-room warts (verrucae necrogenicae).
1863	Karl Ludwig Kahlbaum (1828-1899), German physician, classified various forms of insanity and defined paraphrenia.
1864	At the first Red Cross convention, delegates approved rules for the protection of sick and wounded soldiers.
1864	The Deutsche Psychiatrische Gesellschaft was founded in Berlin.
1865	The Arkhiv sudebnoi meditsiny i obshchestvennoi gigieny, the first medicolegal journal in Russia, started publication.
1867	The Medico-Legal Society of New York was established.
1867	Theodore George Wormley (1826-1897), American toxicologist, published Micro-chemistry of Poisons, an important contribution to the identification of poisons and the first American book devoted entirely to toxicology.
1868	The Société de médecine légale was founded in Paris by Alphonse Dévergie (1798-1879).

1869 John Ordronaux (1830-1908), American physician and lawyer, teacher and writer, published his Jurisprudence of Medicine, concerning jurisprudence in medical practice. 1870 The first American National Prison Congress was held in Cincinnati. Its "Declaration of Principles" became the cornerstone of modern prison reform. 1871 Pierre Paul Broca (1824-1880). French anthropologist and founder of craniometry, started publication of his Mémoires d'anthropologie. 1875 Emil Theodor Kocher (1841-1917) of Bern published his first short treatise on wounds caused by bullets from small-calibre guns. Other treatises appeared in 1880 and 1895. Caesare Lombroso (1836-1909), 1876 founder of criminology, published a book on criminal personality, L'uomo delinquente. It appeared in several editions and translations. In Massachusetts, the office of 1877 Coroner was abolished and replaced by the office of Medical Examiner. Several other states followed suit. Eduard Hofmann (1837-1897), professor 1877-8

and revive interest in it.

of forensic medicine at the University of Vienna, published his Lehrbuch der gerichtlichen Medizin, which was translated into several foreign languages. It helped to reform forensic medicine

1878	The first Congrès international de médecine légale was held in Paris.
1879	A Chair of Forensic Medicine was established at the University of Jassy, Rumania.
1882	Louis Adolphe Bertillon (1853-1914), French anthropometrist, devised the first scientific system for physical identification of individuals (eleven bodily measurements were suggested). He is often regarded as the creator of what is now called forensic science.
1882	Universitas Carolo-Ferdinandea in Prague was divided into two administratively independent units: German and Czech. Forensic medicine at the German University was taught by Joseph Maschka (1820-1899). Courses in forensic medicine at the Czech University, School of Law, were given from 1883 by Václav Bělohradský (1844-1896); at the School of Medicine, from 1884, by Josef Reinsberg (1844-1930).
1883	Pennsylvania passed an Anatomical Law.
1883	The Medico-Legal Society of New York began publishing its Medico-Legal Journal.
1885	The Medical Defence Union for the support and protection of medical practitioners was founded in London.
1887	John Harvey Girdner (1856-1933), American physician, devised an electric instrument for the detection of bullets in the body tissues.

1887	The Institute of Legal Medicine was established in Tokyo.
1891	Juan Vucetich (1858-1925) of Argentina devised a new system for the classification of fingerprints (all fingers).
1892	Francis Galton (1822-1911), English scientist, explorer, and anthropometrist, introduced identification by fingerprints (dactyloscopy).
1894-96	A four-volume work of encyclopedic features, Medical Jurisprudence, Forensic Medicine and Toxicology, was published in the United States. Edited by Rudolph A. Witthaus and Tracy C. Becker and with many contributors, it was a standard comprehensive source of information for many years.
1895	Wilhelm Konrad Roentgen (1845-1923), German physicist, discovered X-rays.
1896	X-ray pictures were admitted as evidence in English courts (London) and in the United States (Wichita, Kansas, and Denver, Colorado).
1896	The Instituto de Medicina Legal y la Morgue was established by Law 3379 in Buenos Aires.
1901	The Medico-Legal Society was founded in London.
1901	The Medico-Legal Journal was established in Cambridge, England.

1906	The Congrès pour la répression de l'exercice illégal de la médecine took place in Paris.
1907	Hans Gross (1847-1915), Austrian criminologist, published his Criminal Investigation, which remains among the classics of criminology.
1900	Paul Hermann Martin Sudeck (1866-1938), German surgeon, described traumatic osteoporosis (Sudeck's atrophy).
1910	The Laboratoire de police technique was established in Lyon.
1910	The University of Copenhagen Institute of Forensic Medicine was established.
1913	The Associazione Italiana di Medicina Legale was founded in Torino.
1914	The Servicio de Medicina Legal was organized in Bogotá, Colombia.
1918	The Office of Coroner was abolished in New York and replaced by the Office of the Chief Medical Examiner of the City of New York. In New York City, at that time, there were about 6,000 violent deaths a year.
1919	Reinhardt von den Velden (1880-1941), introduced intracardiac injections to renew the action of the heart.
1921	The Institute for Medico-Legal and Mental Tests was founded in Moscow.

1922	The American Society of Clinical Pathologists was founded in Denver, Colorado.
1925	The Scopes trial, or the so-called "Monkey Trial," was held in Dayton, Tenn.
1927	The Council on Medical Education and Hospitals of the AMA suggested to the Association of American Medical Colleges that the subjects of medical economics, medical jurisprudence, medical history, and, perhaps also in some instances, pastoral medicine might be conveniently grouped with that of medical ethics under the general
1th Looyering	title of "Social relations of physicians."
1928	The Conferencia Latino-Americana de Neurología, Psiquiatría y Medicina Legal took place in Buenos Aires.
1929	The first forensic science laboratory in the United States was established by private interests at Northwestern University, Chicago.
1931	Kenneth Merril Lynch (1887-), American pathologist, reported the first fatal case of asbestosis in the United States.
1938	The first Congrès international de médecine légale et de médecine sociale was held in Bonn.
1946	In the U.S.S.R., the Vsesoiuznoe nauchnoe obshchestvo sudebnykh medikov i kriminalistov [All-Union Society of forensic physicians and criminologists] was organized, with thirty-five branches.

The Pan-American Congress of Legal Medicine, Forensic Odontology and Criminology took place in Havana.

1947

1949

Ten points describing those medical experiments which may be performed on human beings constituted part of the decision handed down by Military Tribunal I. at Nürnberg. The defendants were men and women who had conducted criminal medical experiments on non-German nationals, especially in concentration camps. The ten points became the foundation of an international code of medical ethics; they are known as the "Nürnberg Ten-Points Code of Medical Ethics."

The International Digest of Health

Legislation, the only periodical covering

nearly all the countries of the world appeared in Geneva, published by the World Health Organization.

The Geneva Convention prohibited multilation, cruel treatment, torture, and biological experiments on human beings in time of war.

1950 Richard Harold Lawler (1895- ),
American surgeon, with other physicians,
successfully transplanted a human kidney.

The House of Delegates of the AMA encouraged "increased activity on the part of the Subcommittee on Teaching of Legal Medicine and Medical Jurisprudence in medical schools to the extent that the teaching of these subjects will become a part of medical school curriculum."

1955	At the first Congrès international de moral médicale, Paris, several lectures and discussions were presented on human experimentation.
1958	The Food Additives Act, introduced in Congress by Senator Lister Hill, became Public Law 85-929. It prohibits the use of additives not sufficiently tested to ensure consumer health.
1962	The first Inter-American Conference on Legal Medicine and Forensic Science was held at Rio Piedras, Puerto Rico.
1963	The Hill-Harris Act, providing assistance in constructing facilities for the mentally retarded and mentally ill, was approved by President Kennedy. Subsequent amendments helped to initiate further services to the inmates. This legislation was important to forensic psychiatry.
1964	The Declaration of Helsinki - the code of ethics of the World Medical Association concerning human experimentation.
1968	Medicolegal aspects of procurement of human tissue for research were reviewed and discussed at the conference arranged by the National Institutes of Health (Extramural Forum and the NIH Seminar on Science and Public Policy) at Airlie House, Warrenton, Va.